What Local Officials Say About Open Procurement

Ellen Troxclair , District 8 Councilwoman in Austin, Texas
"Let's Fix Our Underground Water Infrastructure Through Open Competition" June 2017
https://www.uni-bell.org/application/files/5315/0117/7718/Lets_Fix_Our_Underground_Water_Infrastructure_Through_Open_Competition.pdf

Mayor John Marchand, City of Livermore, CA
"Leveraging the Science of Water and Sustainability: Achieving Public Health Benefits with PVC Pipe Underground Infrastructure." Spring 2017
https://www.uni-bell.org/application/files/9514/9323/7404/Leveraging_The_Science_Of_Water_And_Sustainability.pdf

Mayor Billy Hewes, City of Gulfport, MS
Wayne E. Miller, P.E., Director of Public Works, Gulfport, MS
Open Letter to the American Water Work Association (AWWA) – April 2016

Burton Mayor Paula Zelenko
Burton Utilities Superintendent Dave Marshke
"Burton Drinking Water Recognized with Award." May 2015
https://www.uni-bell.org/application/files/8014/6057/5503/TheBurtonView_Burtondrinkingwaterrecognizedwithaward.pdf

Mayor Keith Cain, Princeton (IL) City Council
"Material Bids Will Speak for Themselves" February 2015
https://www.uni-bell.org/application/files/9914/6057/5909/material_bids_will_speak_for_themselves.pdf

Councilman Jon Russell, Culpepper, VA
"Pipe dream? Review pipe procurement policies to keep taxpayer money from going down the drain." April 2015
https://www.uni-bell.org/application/files/5714/6057/5090/WillFlintofficialsadoptaCompetitiveBiddingProcesstoFixTheirPipesFINAL.pdf

"Will Flint Officials Adopt a Competitive Bidding Process to Fix Their Pipes?" February 2016
https://www.uni-bell.org/application/files/2114/6057/5679/pipe_dream-review_pipe_procurement_policies_to_keep_taxpayer_money_from_going_down_the_drain.pdf

Mayor Gregory A. Ballard, Indianapolis, IN
"Underground Water Infrastructure: Getting Results in Indianapolis through Continuing Improvement and Modern Materials Procurement Practices." Spring 2012
https://www.uni-bell.org/application/files/2414/6051/2547/underground_water_infrastructure_getting_results_in_indianapolis-mayor_gregory_a_ballard.pdf

Jennifer Hosterman, Former Mayor of Pleasanton
"Pleasanton's Underground Infrastructure: Sustainability, Cost-Efficiency Through Better Materials Procurement Practices." March 2011
https://www.uni-bell.org/application/files/8414/6058/0989/March_28-2011USMayor_3.pdf

TribTalk
A publication of *The Texas Tribune*

BY ELLEN TROXCLAIR JUNE 16, 2017

LET'S FIX OUR UNDERGROUND WATER INFRASTRUCTURE THROUGH OPEN COMPETITION

Like so many other people across the nation, I was horrified by the water contamination crisis that struck Flint, Michigan. As an elected official who bears direct responsibility for maintaining the integrity of my city's drinking water system, I ask myself: What can be done to keep this from happening in my community?

Flint has taught us that we cannot be complacent. Providing clean and affordable drinking water requires diligence that nips problems in the bud as soon as they are spotted, as well as the foresight to upgrade water systems before they deteriorate to the point that they threaten public health.

Underground pipes account for 60 percent of the cost of maintaining our water systems. It is here that we need to focus our attention and our resources, because we have thousands of miles of leaking, corroded, underground iron water pipes that if not replaced in a timely fashion will trigger the next Flint disaster in an unsuspecting community.

The American Society of Civil Engineers recently released its 2017 Infrastructure Report Card, which gave the nation's drinking water infrastructure a grade of "D." This will come as no surprise to municipal officials who for years have been coping with water main breaks and the ever-present threat that leaking underground pipes will provide pathways for water-borne diseases to be transmitted to our homes and businesses.

Make no mistake — raising a water infrastructure grade of "D" to an "A" is going to cost a lot of money. This is why it is crucial that local officials make every effort to ensure their water systems can take advantage of innovative technologies and materials that provide cost-effective and long-lasting solutions to the challenges facing our water and waste systems.

Unfortunately, many jurisdictions are their own worst enemy when it comes to upgrading their underground water pipes. They are saddled with antiquated procurement specifications that limit the choices engineers can make in selecting piping materials that best suit local needs. By not allowing competitive bidding to decide the future of their water systems, these jurisdictions are doing a grave disservice to ratepayers and taxpayers.

When there is competition, costs go down, enabling the more rapid rehabilitation of life-sustaining water systems. Burton, Michigan—right next door to Flint—has opened up its underground pipe procurement to competitive bidding, and other jurisdictions in surrounding Genesee County are following suit. Similarly, legislation promoting competitive bidding on state-funded underground pipe projects is pending in Ohio, North Carolina, South Carolina, and Michigan.

A 2013 U.S. Conference of Mayors report on underground water infrastructure concluded, "Closed procurement/processes lead to unnecessary costs, and may diminish the public's confidence in a local government's ability to provide cost-effective services."

While open competition in piping materials is a very obtainable goal for local lawmakers, oftentimes they run up against department heads stuck on preserving the status quo due to a fear of change. This type of resistance sometimes requires local officials to take matters into their own hands and force regulators to open their specifications to include a variety of piping materials. Model policy written by the American Legislative Exchange Council (ALEC), "The Open and Fair Competition Resolution for Municipal [or Local] Water and Wastewater Projects" can be adopted by city and county officials so they can give firm direction to staff.

Open and fair competition is a win-win for taxpayers that will drive down costs of overall underground infrastructure.

Give us the tools, and we can get the job done.

Ellen Troxclair is the District 8 Councilwoman in Austin, Texas. She is a successful businesswoman, running a residential real estate business and is a member of the American City County Exchange, a project of the American Legislative Exchange Council (ALEC).

Ellen Troxclair is a City Council Member for Austin, Texas.

Mayors Water Council
Newsletter of the Mayors Water Council of The United States Conference of Mayors
SPRING 2017

Leveraging the Science of Water and Sustainability: Achieving Public Health Benefits with PVC Pipe Underground Infrastructure

By Mayor John Marchand, City of Livermore, CA

In our nation, mayors face many challenges and find themselves relying on the skills and advice of others while also drawing on their own knowledge and expertise. I am honored to be part of The US Conference of Mayor's Water Council where our experience and expertise can be shared mayor to mayor.

As mayors, our bottom line has always been public health and safety. I spent my career as a drinking water chemist so one of my top priorities has always been water quality. Water is the most fundamental compound for life to exist. Prior to becoming a mayor, I spent 40 years dealing with water quality issues. As a result, I have gained an expertise in one of our most pressing public health issues - Water Quality. The standard, to which I held myself and encouraged others, was to "Strive for perfection, settle for excellence."

Science and Sustainability

Livermore with a population of 84,000, values science and is the home of two national science laboratories. Teams from the Lawrence Livermore National Laboratory and the Flerov Institute in Russia created a new chemical element livermorium, which places the city's name in the periodic table. Livermore also prides itself on sustainability by maintaining services and planning for growth. It even boasts a world record of a 110+ year old 4-watt light bulb, called the Centennial Light, which has been burning continuously since 1901.

Tubercle formation in iron pipe. Photo by John Marchand

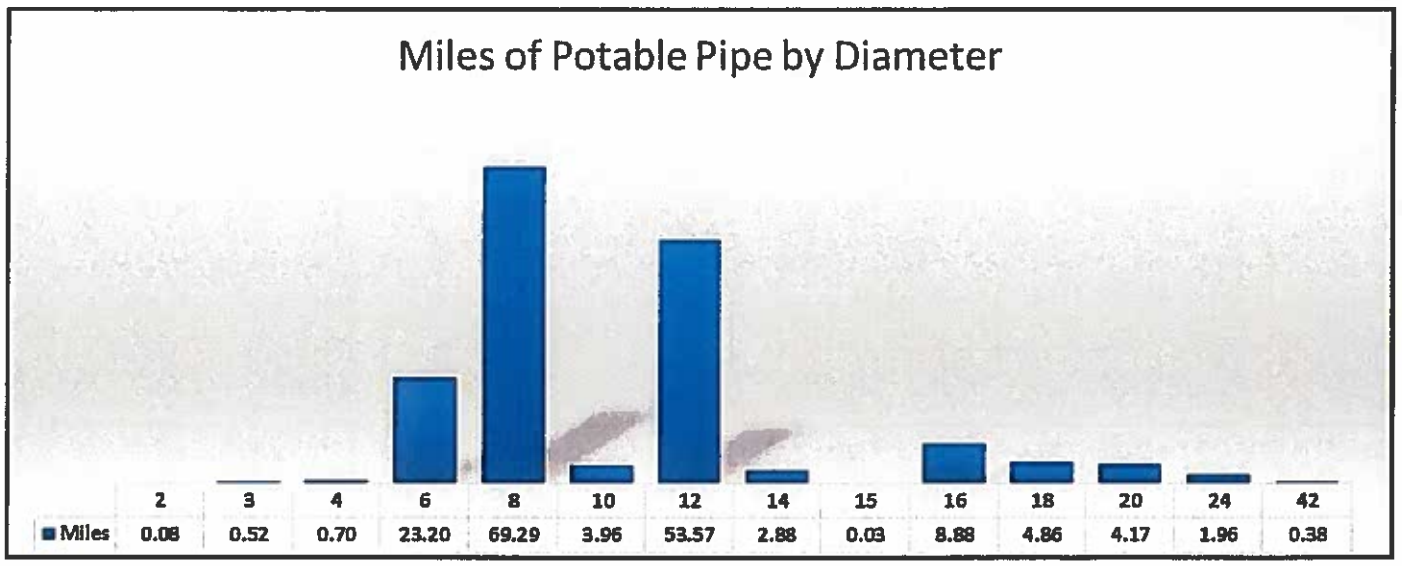
We also invest in sustainability in our underground water infrastructure. Our water system consists of 175.5 miles of potable pipe, 18.6 miles of recycled pipe and 296 miles of sewer pipe, 2,758 valves, 1,578 hydrants, and 376 other appurtenances such as air release and blow-off valves.

Based upon water industry standards, we do a great job of treating the water. However, we cannot forget about water quality once the water leaves the plant. The underground pipe material which makes up the distribution system that carries water to our homes and families, is also very important

Water Science: Iron Pipe Corrosion and Lead Leaching

Water quality is a critical issue facing the nation today. We

See PVC PIPE on page 11



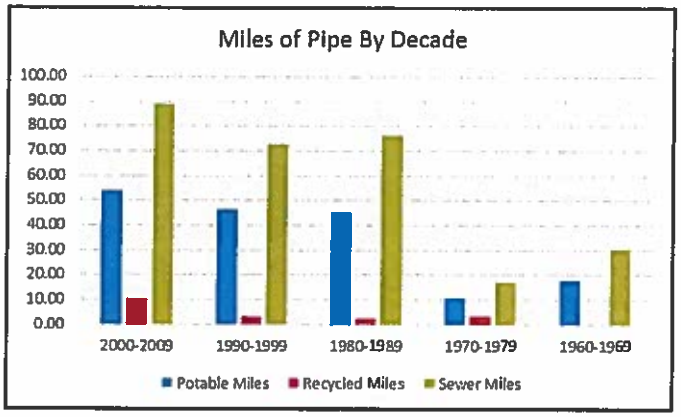
Mayors Water Council

Newsletter of the Mayors Water Council of The United States Conference of Mayors

SPRING 2017

PVC PIPE from page 10

are experiencing the increasing wave of aging water infrastructure challenges with water main breaks, water loss and replacement costs. This occurs as iron pipes corrode and fail. Corrosion and pipe failures not only increase costs but also degrade our water quality.



The water quality crisis in Michigan highlights the fact that insufficiently treated source water can corrode iron pipes, add discoloring sediments and also leach lead into the system.

The internal roughness of iron and cement pipe increases overtime with corrosion and tuberculation. The sediment build up can reduce water flow, cause discoloration, and develop a breeding ground for bacteria, tastes and odors. It can be difficult and costly to mitigate this issue.

In Livermore, the only time something is "good enough" is when it is done right. Using PVC pipe is one of the ways that we preserve and maintain water quality. Like most cities, our potable water system pipe diameter is predominantly between 6" and 12", making up 86% of the water distribution system and 90% of the sewer system.

PVC pipe makes up 57% (99 miles) of our potable system that brings both cost savings to our existing customers and facilitates lower developer fees. This has supported economic growth over the last three decades.

We cannot sacrifice our water quality, so we must select the best material: We are replacing the hazardous asbestos-cement pipe (ACP) that makes up 35.5% of the potable system. Our recycled water pipe is 80% PVC purple pipe, a system that has been very valuable under the State of California's drought mandatory water reduction of 25%. Our sewer system of 296 miles is vitrified clay pipe (VCP) 57% and PVC 35%.

Our Job as Mayors

As I have made the shift from field and lab work to the boardroom and to the mayor's office, my role and responsibilities have changed. The mayor's role is focused on developing policy versus implementing policy. The budget process is how we can drive initiatives.

When I was elected mayor, I told my department managers, it is my job to get you the tools that you need to do your job. It is your job to tell me what tools you need. We need to ensure we give people the tools and funding they need to get the job done right. This includes training, equipment and professional development. We also need to remove every obstacle preventing them from doing their job well. We need to realize that the investment in our water quality includes rigorous water testing, inspection and routine maintenance of our underground infrastructure to ensure that our investment does not come back to the city as a liability.

Our goal is to achieve the planned life expectancy of our assets. Good infrastructure asset management plans, business case evaluations and life cycle costing will help us achieve environmental benefits and cost savings.

Material	Expected Life (years)
CI (cast iron)	60
ACP	100
Steel	60
PVC	100
RCP (reinforced concrete pipe)	60
PVC Lined RCP	100
VCP (vitrified clay pipe)	50
VCP (8-11")	65
VCP (12-15")	75
VCP (>15")	100
AC (asbestos cement)	100
Truss (thermoplastic composite)	100
DI (ductile iron)	50
ABS (thermopastic resin)	75
HDPE Slipline	75

Table from the City of Livermore Water Resources Division November 2012 Collection System Pilot Asset Management Plan

Advantages of PVC Pipe

Upon closer investigation, our Public Works Department realized that most, if not all, of our failures were old steel or

See PVC PIPE on page 12

Mayors Water Council

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PVC PIPE from page 11

cast iron pipes that had failed from corrosion due to soil conditions or failure of cathodic protection. Since those concerns are eliminated with PVC and it is comparable in useful life, it made sense to make the switch on all of our internal projects. We also found that many developers due to its ease of installation preferred PVC. Because it's lighter and easier to work with, it reduces costs. Recognizing the long-term benefits, the City rewrote the standards for pipe installations to use PVC pipe. The quality of the pipe and the expected longevity will also result in fewer interruptions in service. In fact, Livermore has not experienced a PVC pipe failure since we switched over to using it in the 1990's. Furthermore, this reduction in leaks and breaks has resulted in additional conservation of our precious water resources; all the more important during California's recurring droughts.

Discolored water from iron sediments re-suspended from mainflushing. Photo by John Marchand

The use of PVC will also allow the City to increase water pressure to the residents by an average of 25 lbs., further improving quality of life and increasing fire-fighting safety.

Benefits

- PVC is much lighter, making it cheaper to install.
- Relative initial low cost and low maintenance
- No need for cathodic protection systems
- Improved water quality in the distribution system.
- PVC has a conservative life expectancy of at least 100 years.
- PVC pipe is non-corrosive. The quality of the water delivered to the residents does not degrade as may happen with other pipe materials.

Inspire with Passion

We need to urge our communities to build a science based, high water quality sustainable system.

We serve in public office so that our communities can be a better place. We lead by example, ask people for input, give them credit and let them know they are appreciated. If we demonstrate our own passion, we can instill into the city's workforce a passion for what they do and they also will be motivated in achieving high standards with integrity. As members of the community and public servants work together, we can achieve excellence in our cities and enjoy the benefits of sustainable and healthy living.

Biography

Mayor John Marchand has worked on water quality issues for over 40 years. He worked as a water quality chemist for over thirty years. He served as a board member and president with the Zone 7 Water Agency for 15 years. He also had the privilege of being the Chairman of the System Water Quality Committee and the Water Quality Division for the California/Nevada Section of the American Water Works Association. Mayor Marchand is the co-author of three books on water quality and water sampling techniques. He was elected Mayor of Livermore, California in 2011 and is a member of the U.S. Conference of Mayors Water Task Force.

THE UNITED STATES CONFERENCE OF MAYORS

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ACCE American City County Exchange

LIMITED GOVERNMENT • FREE MARKETS • FEDERALISM

April 7, 2016

Mr. David LaFrance
Chief Executive Officer
American Water Works Association
Denver, CO 80235

Re: American Water Works Association Opposition to Open Procurement Practices

Dear Mr. LaFrance:

As Mayor of Gulfport, Mississippi and Co-Chair of the American City County Exchange (ACCE), a national municipal organization promoting limited government and free market solutions for local service delivery, it is with some consternation that I learned of the American Water Works Association's (AWWA) opposition to competitive bidding for water and sewer piping materials (see attached AWWA legislative alert) which could save states and municipalities millions of dollars. This is the same anti-competitive position held by the Ductile Iron Pipe Research Association, which lobbies on behalf of iron pipe producers. I find this pursuit of commercial interest very unsettling considering the AWWA touts itself as an independent professional organization of public utility engineers. As well, it begs the question whether AWWA's activities in this area involve restriction of trade.

Responsible elected officials, financial professionals and utility engineers must support and promote open competition and the need for alternative products and materials in bidding processes for underground infrastructure. Moreover, this is a fundamental right and responsibility of all municipal governments. To oppose this right and threaten to mobilize AWWA's resources against a municipality that is considering opening up its bidding processes to competition is disquieting. DIPRA and the iron pipe industry do not support competitive material bidding, preferring instead iron pipe-only specifications, which increases costs and deprives citizens of access to the most suitable products. The U.S. Conference of Mayors and the National Taxpayers Union, as well as many other organizations have reported on this issue and the need for more open competition in the selection of water and sewer piping in the municipal sector.

In Gulfport, we have committed ourselves to open and fair competition in pipe materials for all our water and sewer projects. As a result, our city has saved substantial sums of money by utilizing a variety of sturdy and safe pipes. If we have learned anything from Flint, Michigan, we learned to not put our public's water safety in the hands of one particular type of piping material. In the case of Flint, that piping material was iron. Not every local jurisdiction is a cookie cutter of the other, therefore each local government must use the piping materials that works best for their communities. Finding that best type of pipe can only be decided by open and fair competition for pipe materials.

The AWWA legislative alert is also very misleading in suggesting that competitive procurement "forces" utilities to specify piping materials "the utility may think unsuited for a particular application" and "has the effect of forcing the selection of materials, to be based solely on price." On the contrary, open competition preserves the autonomy of the design engineer since all pipe materials are qualified and selected based on sound engineering principles. Moreover, by allowing contractors to bid on alternate pipe materials that meet technical performance criteria, the municipality will instill accountability in the procurement process which will reduce costs for all piping purchased, improve quality, and foster innovation.

Regarding the AWWA's comments about the USDA's open procurement policies, Ben Shuman, Senior Engineer, Rural Utilities Service, with USDA's Water and Environment Program states: "Some applicants or local governments have preferences for specific materials whereas our policy requires a consideration of alternatives. In the end, ensuring that rural communities are able to see the options available to them allows them to make better decisions and provide the best service they can to those who live and work in rural America."

Localities which have adopted competitive bidding have not encountered the problems AWWA and DIPRA are suggesting. In fact, it is through open competition that municipalities have been able to modernize their water and sewer networks with newer and better performing materials. Though the AWWA suggests it is "neutral as to which materials utilities select for infrastructure projects," its position against open competition in fact directly supports the maintenance of closed specifications and exclusive markets for iron pipe manufacturers.

When local governments invest in water and sewer infrastructure it's critical that open and fair competitive bidding practices are utilized in order to get the best value for scarce taxpayer dollars. Taxpayers depend on us to use the most cost effective and safest materials possible to get the job done. Over the last couple of years the ACCE has developed model policy for local governments to implement fair and competitive bidding for piping used water and sewer projects. I encourage all local officials, including utility engineers and the AWWA, to use this model policy to lower costs, increase options and improve utility system performance as we have done here in Gulfport, and other municipalities have done across the US.

Sincerely,

Billy Hewes
Mayor

The Burton VIEW
Community News, Sports & Lifestyle

2015-11-05 / News

Burton Drinking Water Recognized With Award

BURTON-- On Oct. 23, the Genesee County Metropolitan Planning Commission (GCMPC) hosted its 10th annual Planning Forum, showcasing the theme Connect – Engage – Grow: Fostering the New Economy and the Next Generation. During the forum, three awards were given in order to recognize deserving innovative projects in Genesee County.

"These community-led projects are only a handful of great work being completed in Genesee County and it is important that we share these efforts across the area," said Derek Bradshaw, director and coordinator of the GCMPC.

The City of Burton's five-year project to replace its aging drinking water system was recognized with the 2015 Innovation in Infrastructure and Technology award from the Genesee County Metropolitan Planning Commission. Burton Mayor Paula Zelenko and Utilities Superintendent Dave Marshke were on hand to receive the award.

Marshke was appreciative for the recognition and the opportunity to bring this topic to the forefront. He stressed the importance of projects like this as clean, affordable water is a necessity for all communities.

"Providing safe drinking water is a top priority for my administration," Zelenko said. "Residents and businesses should feel comfortable knowing they have access to clean and safe drinking water every time they turn on the faucet.

"I am gratified to be recognized for our forward thinking approach and would like to especially credit Water and Sewer Superintendent Dave Marshke for his vision in this effort, as well as DPW Director (Robert) Slattery for his overall work since coming on board."

Using the State of Michigan's low-interest Drinking Water Revolving Fund (DWRF), the City has undertaken an ambitious project to replace its aging and rusty 1930s-era ductile iron watermain infrastructure within the City's Water Tower district with safer, more cost-effective and environmentally friendly PVC pipes. The old iron pipe, which is falling victim to corrosive soils, has outlived its maximum life expectancy of 75 years. The City is looking to the future using PVC watermain pipe, which is manufactured as a "green" product, requires less energy and fewer resources and has a conservative life expectancy of at least 100 years. It is much lighter, making it cheaper to install and maintain. Most importantly, because PVC pipe is non-corrosive, the quality of the water delivered to the residents is healthier than water carried by ductile iron.

The use of PVC will also allow the City to increase water pressure to the residents by an average of 25 lbs., further improving quality of life and increasing fire-fighting safety. The quality of the pipe and the expected longevity will also result in fewer interruptions in service. Not only that, but the use of PVC is saving the taxpayers of Burton $651,000.

"PVC is clearly the better choice, for the positive impact it will have on the environment and the residents of the City of Burton, as well as for the cost savings it will bring," Zelenko said. "The project, which began in June 2014 will, when completed in 2019, have replaced over 19 miles of corroded, dilapidated cast iron pipe with high quality, healthy, low cost PVC pipe-- benefitting the residents of the City of Burton in many ways for decades to come."– **B.P.**

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bcr news .com

February 9, 2015

Bureau County Republican

Material bids will 'speak for themselves'

THE PVC PIPING ALTERNATIVE TO DUCTILE IRON

By ZITA HENNEBERRY

PRINCETON, IL — In response to a recent publication concerning bids for the upcoming Claude Bailey Subdivision water main construction, executive director of Uni — Bell PVC Pipe Association contacted Mayor Keith Cain, Princeton City Council members and the Bureau County Republican to discuss the modernization of local infrastructures with a PVC piping option.

"PVC pipe is the most widely used material for water and sewer piping in North America, and there are no reasons to not include it in bids," said Hollands.

Hollands explained, when PVC is excluded from the bidding process, only iron materials are bid, causing prices to easily escalate. The inclusion of PVC in the municipal bids for a project drops the prices through competition, said Hollands, adding even when PVC is not the chosen material, including it in the bidding process is a great benefit.

Competition is a great thing and is the only thing that will drive the industry to a more efficient process of procedure, said Hollands.

Princeton City Manager Jeff Clawson said, the bids will go out for both materials and the costs will "speak for themselves."

Throughout his career, Clawson has used PVC piping and said he has never had an issue.

"PVC is the industry standard," said Clawson. After having discussed the PVC piping option with the residents of the Claude Bailey Subdivision, Clawson believes overall the residents are comfortable with either option.

Former Princeton Water Department Superintendent Mike Eggers presented his opposing opinion at the recent city council meeting alongside regional engineer of the Ductile Iron Pipe Research Association, Paul Hanson. Eggers adamantly disapproves of PVC's use in Princeton, believing it would compromise the integrity of the Princeton water main system.

However, PVC is more cost effective, and unlike ductile iron, it is maintenance free, said Hollands.

He explained, "It is not only more cost-effective than iron piping but lasts longer because it is corrosion proof."

While Eggers believed corrosion was not an issue for the local area, Hollands said corrosion can be an issue in small or large areas of any system.

The matter of PVC versus ductile iron is one of personal opinion and

Both materials meet the piping standards, Clawson said, adding anyone is entitled to his or her opinion on the matter, however, it's just an opinion.

Clawson encouraged Princeton residents to ignore the opinions of both Eggers and himself and research the materials to formulate their own opinions.

Some engineers remain resistant to the use of PVC piping in pocket areas throughout the Midwest and northeast, said Hollands.

"However, PVC water pipe has been shown to be up to 70 percent less expensive than iron piping, and its longevity surpasses 100 years according to numerous reports," Hollands said.

Hollands encouraged any individuals resistant to PVC piping to further familiarize themselves with the PVC material.

He and the PVC Pipe Association offered for its senior regional engineer, Steve Cooper, to address any questions Princeton engineers or council may have. Cooper would be able to provide a presentation on PVC piping to the Princeton City Council and/or the engineering staff in March.

Courtesy of the Bureau County Republican, article by Staff Writer Zita Henneberry; zhenneberry@bcrnews.com

AMERICAN LEGISLATOR
A FORUM FOR LEGISLATIVE DEBATE BY THE AMERICAN LEGISLATIVE EXCHANGE COUNCIL (ALEC)

WILL FLINT OFFICIALS ADOPT A COMPETITIVE BIDDING PROCESS TO FIX THEIR PIPES?

FEBRUARY 29, 2016
By: HON. JON RUSSELL

Federal disaster relief for Flint Michigan's water contamination could exceed one billion tax dollars before all is said and done. As that money is dispersed to solve Flint's water contamination, what steps are being taken to ensure this money is being used wisely? How are the taxpayers going to be reassured this money is not going to fund pet projects and crony capitalists?

It is no secret that corroded iron pipes were the main cause of lead poisoning. Is the local, state and federal government going to just replace the iron pipes with new iron pipes? Or are they going to open up the bidding process to fair and competitive bidding to include a variety of piping materials, which will allow the best quality and best-priced piping material to replace the old? The ductile iron pipe industry is known for its heavy lobbying and campaign contributions to elected officials and courting of public works directors and utility engineers, which serves to skew the bidding process in their favor in many municipalities in the United States. Given the current crisis in Flint, it is incumbent on every elected official to make sure all industries are considered in the rebuilding of Flint's water system, and not just the politically connected.

In nearby Burton, the city embraced open and competitive bidding on piping materials in 2012, which has helped to drive down costs and provide high-quality piping materials for residents. Burton, which was economically distressed when city leaders adopted open and competitive bidding, now stands as a model for Flint as to the benefits of open and competitive bidding.

An ALEC article published last year in ***Public Works Magazine*** discussed the benefits of the competitive bidding process and why making piping material costs more competitive is important:

> Underground piping represents 60% of the total spending for water and wastewater infrastructure, according to the EPA. Further, the *American Society of Civil Engineers* estimates there are 240,000 water main breaks per year. So it would make sense to for elected officials to embrace open and fair bidding policies for water and sewer piping to help municipalities realize significant cost savings and ensures that public funds are spent more cost effectively.

AMERICAN LEGISLATOR
A FORUM FOR LEGISLATIVE DEBATE BY THE AMERICAN LEGISLATIVE EXCHANGE COUNCIL (ALEC)

CONTINUED...

To ensure taxpayer dollars are spent wisely, the government should consider using *American Society for Testing and Materials* or *American Water Works Association* standards for all specifications or design criteria. The goal should be to construct a project at the best price and value for system customers and taxpayers.

The *U.S. Conference of Mayors* endorsed an open procurement and selection process in a 2013 report. "Procurement habituation in pipe material consideration combined with a failure to take advantage of the open bidding process impedes competitive cost savings," concludes *Municipal Procurement: Procurement Process Improvements Yield Cost-Effective Public Benefits*. "Closed processes lead to unnecessary costs and may diminish public confidence in a local government's ability to provide cost effective services."

[Then-] Indianapolis Mayor Greg Ballard echoed similar sentiments in the *Spring 2012 issue of the Mayors Water Council*.

The American City County Exchange has created model policy for local governments to use to create a system of open and fair competitive bidding. It is the intention of the resolution to ensure that all proven and acceptable piping materials be included in all bids for water and wastewater projects. This promotion of free competition will ensure limited government resources are being used to the greatest advantage. The goal is to construct a project at the best price and best value for system customers and taxpayers. Click here for *The Open and Fair Competition Resolution for Municipal [or Local] Water and Wastewater Projects.*

Hopefully Flint officials will take steps to protect their citizens from future crises by not continuing the status quo.

Councilman Jon Russell is Director of the American City County Exchange, a branch of the American Legislative Exchange Council that advances limited government and free market principles in local government through model policies, conferences and online collaboration. He is Town Councilman in Culpeper, VA where he sits on the Finance Committee and serves as Chairman of the Public Safety, Community Development and Public Works Committees. E-mail jrussell@alec.com.

AMERICAN LEGISLATOR
A FORUM FOR LEGISLATIVE DEBATE BY THE AMERICAN LEGISLATIVE EXCHANGE COUNCIL (ALEC)

PIPE DREAM? REVIEW PIPE PROCUREMENT POLICIES TO KEEP TAXPAYER MONEY FROM GOING DOWN THE DRAIN

April 7, 2015
By: JON RUSSELL

This op-ed originally appeared in the March 2015 edition of Public Works Magazine.

When city councils look for ways to save money, they often don't think to look underground.

After labor costs, public works projects are the biggest financial drivers in a municipal budget. Yet councils frequently leave piping decisions to public works directors, who decide the types of piping materials the jurisdiction uses for water and sewer projects.

As part-time public servants, many council members may believe such issues should be left up to the experts or worry they're micromanaging if they question specifications. Based on the size of the locality, tens of thousands or possibly millions of dollars in cost savings could be realized by opening procurement of piping material to fair and open competition. City councils shouldn't shy away from these opportunities.

Underground piping represents 60% of the total according to the EPA. Further, the American Society of Civil Engineers estimates there are 240,000 water main breaks per year. Updating procurement policies for water and sewer piping helps municipalities realize significant cost savings and ensures that public funds are spent more cost effectively.

To ensure taxpayer dollars are spent wisely, municipalities should consider using American Society for Testing and Materials or American Water Works Association standards for all specifications or design criteria. The goal should be to construct a project at the best price and value for system customers and taxpayers.

AMERICAN LEGISLATOR
A FORUM FOR LEGISLATIVE DEBATE BY THE AMERICAN LEGISLATIVE EXCHANGE COUNCIL (ALEC)

CONTINUED...

The U.S. Conference of Mayors endorsed an open procurement and selection process in a 2013 report. "Procurement habituation in pipe material consideration combined with a failure to take advantage of the open bidding process impedes competitive cost savings," concludes Municipal Procurement: Procurement Process Improvements Yield Cost-Effective Public Benefits. "Closed processes lead to unnecessary costs and may diminish public confidence in a local government's ability to provide cost effective services."

Indianapolis Mayor Greg Ballard echoed similar sentiments in the Spring 2012 issue of the Mayors Water Council.

"To increase productivity and reliability, value, and cost reductions, we've had to challenge our traditional procurement patterns to fit each service application, especially where infrastructure investment is involved," Ballard writes. He says aging pipes that were corroding and leaking water helped change local lawmakers' thinking about efficiency and materials procurement.

SAVING TAXPAYER MONEY

Some jurisdictions already consider a plethora of materials, but most are locked into the old ways of doing business where no alternatives are considered. The first goal of elected officials should be to operate in the most efficient way possible to save taxpayers money without compromising services. Organizations like the American City County Exchange offer model policy on pipe procurement that can help start a conversation about open and fair competition.

Municipal budgets are often tight, and significant savings can be realized by looking in unexpected places. Councilmen and women live in a new era of budgeting where the public demands — and deserves — more accountability and transparency for every dollar spent.

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Mayors Water Council
Newsletter of the Mayors Water Council of The United States Conference of Mayors
SPRING 2012

WATER AND WASTEWATER MANAGEMENT: INNOVATIONS AND COST EFFICIENCIES

Underground Water Infrastructure: Getting Results in Indianapolis through Continuing Improvement and Modern Materials Procurement Practices

By Mayor Gregory A. Ballard

We have established a culture committed to continuing improvement in Indianapolis City government. This means change or at least thinking outside the box to explore opportunities for increasing service delivery efficiency and effectiveness. One of the greatest challenges for a Mayor is providing leadership in developing a team geared for success that can problem solve. What we have learned in Indianapolis is that in order to increase service productivity and reliability, added value, and cost reductions we have had to challenge our traditional procurement patterns to fit each service application, especially where infrastructure investment is involved.

One of our most significant accomplishments in the area of infrastructure investments is our Combined Sewer Overflow (CSO) control plan first adopted as a 2006 consent decree and subsequently amended twice. More than 700 other communities in the US have CSO issues. In our case less than an inch of rain could sometimes exceed system capacity. On an annual basis it is estimated that rain events could generate as much as 7.8 billion gallons of overflow. When I came into office in 2008, the $3.5 billion estimate for the mandated improvements and system upgrades had already grown another $300 million. That is why I asked my Public Works Department to establish an expert team of engineering and consulting firms to take a holistic approach by looking at the entire wastewater system and storm water problem, think outside the box, and develop a control plan to ensure that cost-efficiency and sustainability criteria are met.

Indianapolis's Public Works Department, armed with increased and accurate engineering and stormwater information, successfully renegotiated the terms of the consent decree settlement in 2011 with the EPA and US Department of Justice. Today the EPA Region 5 Administrator refers to the amended control plan as a model for all communities. The new control plan is cheaper (by $740 million), gets a greater level of environmental improvement by reducing overflows by an additional billion gallons annually, and accomplishes all this in less time than the 2006 consent decree plan.

I want to focus here on part of the overall strategy we employed to reduce costs, expand service delivery and increase environmental results. Our aging city water and wastewater infrastructure serves nearly 1.1 million citizens. Two, of many, important factors in our thinking involved an upgrade of the existing physical plant, and the need to accommodate growth by expanding the service area. To limit stormwater we expanded the service area by switching a septic field over to the wastewater collection and treatment system. To improve system efficiency we changed our thinking about materials procurement because the repair and replacement of collection systems (and water supply distribution systems) was driven by aging pipes that were corroding and leaking water.

Indianapolis Mayor Gregory A. Ballard

These, and other, reasons prompted us to examine our procurement policies and practices. As we explored repair and replacement options we found that alternative pipe materials like PVC pipes have demonstrated superior performance in soil conditions present in our city. We also learned through life cycle analysis that the PVC pipe has both a longer useful life than traditional pipe materials, and has a lower cost to both install and maintain.

Indianapolis opened its procurement policies and practices to ensure we have a chance to also act outside of the box, which includes using alternative green technologies and durable and cost effective materials in the bids for our new combined sewer system. PVC now makes up 33 percent of the collection system. Water and wastewater operations and maintenance (O&M) costs, nationally, are increasing by six percent above inflation annually. Using a non-corrosive material is critical to keeping long-term maintenance costs down and minimizing our capital replacement budgets.

We have aggressively installed PVC pipe in our water distribution system which now makes up over 28 percent of the total length of the system. We are already experiencing a significant decline in

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WATER AND WASTEWATER MANAGEMENT: INNOVATIONS AND COST EFFICIENCIES

Make the Business Case for Advanced Metering Infrastructure

By Ike Moss, Executive Director, Business Development, Aclara

Municipalities are facing numerous challenges with respect to delivering water to citizens. Aging water infrastructure in some cities increases the chances of leaks and main breaks, rapid growth in others pushes the limits of available capacity, and still other cities must balance conservation measures with increased operating costs. Plus, all municipalities are facing demands from citizens for improved service. In the age of smart phones and tablet computers, people expect not only plentiful and inexpensive water, but plentiful information about water usage and quick resolution to any problem.

Many cities are considering the advantages of advanced metering infrastructure (AMI) using fixed networks to address these challenges. Fixed networks are a permanent infrastructure consisting of data collectors that receive readings up to every hour from transmitters attached to every meter. The data collectors send the collected meter readings to the utility at regular intervals. These systems also allow the utility to communicate to individual meters, opening the door to benefits such as on-demand meter reads.

AMI has distinct advantages over traditional methods of reading water meters. Historically, cities employed people to manually read meters at set intervals during the year. Many cities in the recent past enhanced the traditional process by switching to automated meter reading solutions that collect readings when staff walk or drive by meters.

However, simply automating meter reading doesn't solve the basic problem associated with traditional solutions because walk by or drive by systems may not provide enough information to effectively help utilities in their analyses of water usage. For example, walk-by or drive-by systems are limited to one meter reading a month and lack interactive capabilities. Yet, more information on how water is being used is exactly what is needed for cities to improve operational efficiencies, enhance customer service, and maximize water conservation.

Proactive Customer Service

Fixed-network AMI systems are a solution to the information needs not met by walk by and drive-by systems. They collect information from meters every day. One of the important uses for this data is to improve customer billing and service. AMI eliminates estimated bills, which can be highly inaccurate and often lead to billing errors and complaints. In fact, AMI alone can reduce billing errors by up to 80 percent.

The daily information gleaned from AMI data also can help customer service representatives resolve complaints quickly. For instance, when responding to a high-bill complaint a customer service representative can pull up-to-the-minute reports directly from the AMI system about water usage. This information makes it easier to analyze the customer's bill and answer questions.

Many utilities that employ fixed-network AMI also put information about daily usage on web sites so that customers can refer to it even before they call the water company. For example, having this data readily available to customers significantly reduced the number of customer service calls to the Boston Water and Sewer Commission, which employs the Aclara STAR Network AMI.

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our total water breaks as a result. PVC pipes in our system have a failure rate 2.5 times less than traditional pipe materials, and this we have realized significant cost savings for ratepayers.

Indianapolis will continue to face the challenges of wastewater and water infrastructure investment and service delivery because of population growth, unfunded federal mandates, and a changing climate pattern. We are, as local government leaders, very mindful of the increasing costs to our citizens and as stewards of their trust. We will continue to challenge and transform old approaches to procurement that do not benefit the public. In our experience it has been demonstrated that solutions developed at the local level often involve innovative strategies to cost-effectively improve our ability to provide value to both the public and the environment.

Best Practices

Pleasanton's Underground Infrastructure: Sustainability, Cost-Efficiency Through Better Materials Procurement Practices

By Pleasanton (CA) Mayor Jennifer Hosterman

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Pleasanton (CA) Mayor Jennifer Hosterman

Pleasanton (CA) is one of the best places to live in the U.S., according to Money Magazine. As a long-time resident and fourth-term mayor, I am not surprised the city is recognized for its recreational, educational and cultural facilities as well as a climate that are second-to-none. Our residents are proud of the general high quality of life: a low crime rate, clean streets, and stable employment – even in these times of high unemployment. We are also committed to building and maintaining state-of-the-art infrastructure – particularly the underground water and wastewater systems. That is why we have embraced a non-traditional approach to pipe material selection and installation. The city enjoys several significant public benefits from doing so.

The city grew rapidly in the 1960s and 70s, and to accommodate the growth, it was necessary to expand water and wastewater pipe systems. The city contracts for water purification and wastewater treatment services, but owns and maintains the pipe systems. Over the years, various piping materials were used. At first asbestos-cement pipe was installed, later being replaced by ductile iron. Local soil with high alkalinity and other factors, such as soil moisture and stray electrical currents from other utilities, accelerate the corrosion of buried metal infrastructure. Thus, corrosion-induced failure led to adoption of costly measures to protect the iron pipe.

Pleasanton is not alone in this respect. A 2002 Congressional study found that corrosion costs U.S. drinking water and sewer systems $50.7 billion annually.[1] Pipe corrosion is a leading cause of over 850 daily water main breaks throughout North America.

Pleasanton's utilities department adopted a variety of measures to deal with corrosion., Pleasanton Utilities Superintendent Dan Martin has overseen operations and maintenance of the water and wastewater pipe systems in addition to his many other utilities responsibilities. Utilities managers strive to build durable, sustainable utilities that minimize operating and maintenance costs. When rehabilitating or expanding the infrastructure with ductile iron pipe, we typically require corrosion protection based on several systems that include epoxy coatings, polyethylene sleeves and sacrificial anodes connected to the pipe. While these protective measures have performed well, they greatly increased initial material and placement costs.

As a solution to corrosion and to better control costs, Pleasanton began using corrosion-proof PVC pipe in the mid-1980s because it doesn't need coatings, liners, or other materials to ensure strength or sustainability. Martin, who reports to the mayor and city council regularly, indicates that for the past decade over 90 percent of our pipe installations have involved PVC, which now represents about one third of our water and wastewater lines.

The results have been very impressive. Cost savings are confirmed by city staff. Jim Gotcher, our city construction manager, reports that PVC pipe is about 70 percent cheaper than ductile iron. He also emphasizes that PVC's cost-effectiveness results from various factors in addition to its relative cost advantage compared to traditional pipe materials. For example, he says that it doesn't need the corrosion protection of ductile iron pipe, and installation is less labor intensive and can be done with lighter equipment.

This alternative pipe material performs well in the sustainability category. PVC pipe failures are extremely rare, helping to hold the line on operation and maintenance costs – which are, according to a 2010 U.S. Conference of Mayors Report on Trends in Public Expenditures on Water and Wastewater, have far surpassed capital costs. Other public works information suggests that water and wastewater pipe O&M costs are increasing by six percent above inflation yearly.[2] Additionally, PVC pipe is totally recyclable, though most of it has yet to enter the recycling stream given its durability and expected long in-use life-cycle.

As mayor, I am committed to the goal of continually enhancing our community's livability and sustainability. Like other mayors, I rely heavily on city council and staff to be key drivers in establishing policies and programs that ensure Pleasanton's high quality of life and its dedication to excellence. Part of this approach to improving customer service is managing with an eye for the rainy day, spending smarter and opening procurement policies to alternate materials like PVC pipe. As well, reserves were set aside in good times, allowing the city to continue investing in its infrastructure today.

Ten years ago, we initiated programs to improve how Pleasanton manages its work, including sewer and water systems, to upgrade our services and expand opportunities for our population. Pleasanton's demonstrated progress and outside recognition have come from being adaptive, flexible and open to better technologies such as PVC pipe, and other infrastructure materials and ways of doing city business. This is all part of good-government and smart-government.

While traditional modes of doing business may be the best way, it is always fair to challenge the status quo, especially if a more efficient and sustainable approach is available. From service delivery to procurement practices it makes sense to keep an open mind from staff to council to mayor.

(Endnotes)

1 *U.S. Department of Transportation and the National Association of Corrosion Engineers: Corrosion Costs and Preventative Strategies in the United States, March 2002.*

2 *Water Infrastructure Network, Clean & Safe Water for the 21st Century: A Renewed National Commitment to Water and Wastewater Infrastructure, April 2000.*

While traditional modes of doing business may be the best way, it is always fair to challenge the status quo, especially if a more efficient and sustainable approach is available.

– Pleasanton (CA) Mayor Jennifer Hosterman

Mayors are invited to submit the "Best Practices" of their cities to U.S. MAYOR. Contact Public Affairs at 202-293-7330 or send e-mail to info@usmayors.org